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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/661,943

09/12/2003

Neil Birkett

9931-0040

8373

73552

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12/02/2008

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EXAMINER

PANWALKAR, VINEETA S

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

12/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/661,943	Applicant(s) BIRKETT ET AL.	
	Examiner VINEETA S. PANWALKAR	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-9,11,13,14,19 and 20 is/are allowed.
- 6) ☒ Claim(s) 15,21 and 23 is/are rejected.
- 7) ☒ Claim(s) 16-18 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 15 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 15 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Zugert et al. (US 6466832 B1), hereinafter, Zugert.

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2a. Regarding claims 15 and 21, Zuqert discloses digital wireless receiver, a circuit detecting the presence of a data packet in a received radio frequency (RF) signal (Column 8, lines 6-12), the circuit comprising:

- a direct current (DC) offset module to correct for local oscillator (LO) leakage in in-phase(I) and quadrature (Q) baseband signals derived from the received RF signal (Column 7, lines 37- 46, wherein the adjusting of signals to minimize a difference between the two DC offsets and a desired offset value is equivalent to claimed correcting for local oscillator leakage and is inherently performed by claimed DC offset module. See Fig. 8 and column 15, lines 35-47); and
- an acquisition module to receive the corrected I and Q baseband signals and to perform map, compare, and detect functions in relation thereto to determine a presence of information bits associated with the data packet (Column 8, lines 13-20, wherein the receiver inherently determines a presence of information bits associated with a received data packet and detecting the packet inherently involves claimed mapping. Further, comparison is performed for error detection purposes as disclosed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zeugert in view of previously cited Serra et al. (US 5536902, hereinafter, Serra).

3a. Regarding claim 23, Zeugert shows all the limitations claimed, but fails to explicitly disclose claimed conversion of complex to polar value.

However, Serra shows the use of complex to polar co-ordinate converter so as to obtain the magnitude of the polar value and use it for peak detection (Column 22, lines 34-40).

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It would have been obvious to a person of ordinary skill in the art to use the complex to polar co-ordinate conversion so as to simplify the peak detection technique.

Allowable Subject Matter

3. Claims 1, 3- 9, 11, 13, 14, 19 and 20 are allowed.

The following is an examiner's statement of reasons for allowance:

- 3a. Regarding claims 1, 7, 11 and 19 are allowed because prior art of record fails to disclose modulating the I and Q baseband signals, mapping the modulated I and Q baseband signals to a unit circle on a QPSK constellation, in combination with each and every other limitation of the claim.

- 3b. Claims 3-8, 9,13, 14 and 20 are allowed as being dependent on claim 16.

4. Claims 16-18, 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- 4a. Regarding claims 16 and 22, prior art of record fails the QAM receiver wherein the acquisition module comprises: a M-ary phase shift keying

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(PSK) mapper to map the corrected I and Q baseband signals to a quantized QPSK signal constellation, in combination with each and every other limitation of the claims and their base claims.

- 4b. Claims 17 and 18 are allowable as being dependent on claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINEETA S. PANWALKAR whose telephone number is (571)272-8561. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is

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available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. S. P./

Examiner, Art Unit 2611